SEQUENCE LISTING

<110> Blaschuk, Orest W. Gour, Barbara J. Farookhi, Riaz Ali, Anmar

<120> COMPOUNDS AND METHODS FOR MODULATING CELL ADHESION

<130> 100086.401C18

<140> US

<141> 2003-08-01

<160> 101

<170> PatentIn Ver. 2.0

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Ser Leu Arg Tyr Ser Val Thr Gly Pro Gly Ala Asp Gln Pro Pro Thr 35 40 45

Gly Ile Phe Ile Leu Asn Pro Ile Ser Gly Gln Leu Ser Val Thr Lys 50 55 60

Pro Leu Asp Arg Glu Gln Ile Ala Arg Phe His Leu Arg Ala His Ala 65 70 75 80

Val Asp Ile Asn Gly Asn Gln Val Glu Asn Pro Ile Asp Ile Val Ile 85 90 95

Asn Val Ile Asp Met Asn Asp Asn Arg Pro Glu Phe 100 105

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<213> Mus musculus

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Ser Leu Arg Tyr Ser Val Thr Gly Pro Gly Ala Asp Gln Pro Pro Thr 35 40 45

Gly Ile Phe Ile Ile Asn Pro Ile Ser Gly Gln Leu Ser Val Thr Lys 50 55 60

Pro Leu Asp Arg Glu Leu Ile Ala Arg Phe His Leu Arg Ala His Ala 65 70 75 80

Val Asp Ile Asn Gly Asn Gln Val Glu Asn Pro Ile Asp Ile Val Ile 85 90 95

Asn Val Ile Asp Met Asn Asp Asn Arg Pro Glu Phe 100 105

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Ser Leu Arg Tyr Ser Val Thr Gly Pro Gly Ala Asp Gln Pro Pro Thr 35 40 45

Gly Ile Phe Ile Ile Asn Pro Ile Ser Gly Gln Leu Ser Val Thr Lys
50 55 60

Pro Leu Asp Arg Glu Leu Ile Ala Arg Phe His Leu Arg Ala His Ala 65 70 75 80

Val Asp Ile Asn Gly Asn Gln Val Glu Asn Pro Ile Asp Ile Val Ile 85 90 95

Asn Val Ile Asp Met Asn Asp Asn Arg Pro Glu Phe 100 105

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Gly Val Phe Ala Val Glu Lys Glu Thr Gly Trp Leu Leu Asn Lys
50 55 60

Pro Leu Asp Arg Glu Glu Ile Ala Lys Tyr Glu Leu Phe Gly His Ala 65 70 75 80

Val Ser Glu Asn Gly Ala Ser Val Glu Asp Pro Met Asn Ile Ser Ile 85 90 95

Ile Val Thr Asp Gln Asn Asp His Lys Pro Lys Phe 100 105

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Lys Ile Phe Tyr Ser Ile Thr Gly Pro Gly Ala Asp Ser Pro Pro Glu 35 40 45

Gly Val Phe Thr Ile Glu Lys Glu Ser Gly Trp Leu Leu His Met 50 60

Pro Leu Asp Arg Glu Lys Ile Val Lys Tyr Glu Leu Tyr Gly His Ala 65 70 75 80

Val Ser Glu Asn Gly Ala Ser Val Glu Glu Pro Met Asn Ile Ser Ile 85 90 95

Ile Val Thr Asp Gln Asn Asp Asn Lys Pro Lys Phe
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Phe Pro Lys Asn Leu Val Gln Ile Lys Ser Asn Lys Asp Lys Glu Gly

Lys Val Phe Tyr Ser Ile Thr Gly Gln Gly Ala Asp Thr Pro Pro Val

45 35 40 Gly Val Phe Ile Ile Glu Arg Glu Thr Gly Trp Leu Lys Val Thr Glu Pro Leu Asp Arg Glu Arg Ile Ala Thr Tyr Thr Leu Phe Ser His Ala Val Ser Ser Asn Gly Asn Ala Val Glu Asp Pro Met Glu Ile Leu Ile Thr Val Thr Asp Gln Asn Asp Asn Lys Pro Glu Phe <210> 7 <211> 108 <212> PRT <213> Mus musculus <400> 7 Asp Trp Val Ile Pro Pro Ile Ser Cys Pro Glu Asn Glu Lys Gly Glu Phe Pro Lys Asn Leu Val Gln Ile Lys Ser Asn Arg Asp Lys Glu Thr Lys Val Phe Tyr Ser Ile Thr Gly Gln Gly Ala Asp Lys Pro Pro Val Gly Val Phe Ile Ile Glu Arg Glu Thr Gly Trp Leu Lys Val Thr Gln Pro Leu Asp Arg Glu Ala Ile Ala Lys Tyr Ile Leu Tyr Ser His Ala Val Ser Ser Asn Gly Glu Ala Val Glu Asp Pro Met Glu Ile Val Ile Thr Val Thr Asp Gln Asn Asp Asn Arg Pro Glu Phe 105 <210> 8 <211> 5 <212> PRT <213> Unknown <220> <221> MOD RES <222> (2) <223> Where Xaa is any amino acid

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Binding Motif

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      ester group
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Tyr Ile Gly Ser Arg
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Phe
<210> 55
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<222> (6)
<223> Where Xaa is either Tyrosine or Phenylalanine
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45

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<223> tert-butyl protecting group
<220>
<221> MOD_RES
<222> (4)
<223> tert-butyl protecting group
<220>
<221> MOD RES
<222> (6)
<223> t-Butoxycarbonyl protecting group
<220>
<221> MOD RES
<222> (7)
<223> tert-butyl protecting group
<220>
<221> MOD RES
<222> (9)
<223> tert-butyl protecting group
<220>
<221> MOD RES
<222> (10)
<223> Methoxy terminal group
<400> 62
Cys Asp Gly Tyr Pro Lys Asp Cys Lys Gly
 1
                                      10
<210> 63
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
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<223> Description of Artificial Sequence: Synthesized
      Cyclic Peptide
<220>
<221> MOD RES
<222> (1)
<223> 9-fluorenylmethoxycarbonyl protecting group
<220>
<221> MOD RES
<222> (2)
<223> tert-butyl protecting group
<220>
<221> MOD_RES
<222> (4)
<223> tert-butyl protecting group
<220>
<221> MOD RES
<222> (6)
<223> t-butoxycarbonyl protecting group
<220>
<221> MOD_RES
<222> (7)
<223> tert-butyl protecting group
<220>
<221> MOD RES
<222> (9)
<223> tert-butyl protecting group
<220>
<221> MOD RES
<222> (10)
<223> Methoxy terminal group
<400> 63
Cys Asp Gly Tyr Pro Lys Asp Cys Lys Gly
<210> 64
<211> 10
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthesized
      peptide
<220>
<221> MOD RES
<222> (1)
<223> Residue has t-butoxycarbonyl, and Trityl or
      Acetamidomethyl protecting groups
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<220>
<221> MOD RES
<222> (5)..(6)
<223> tert-butyl protecting group
<220>
<221> MOD RES
<222> (7)
<223> Trityl or acetaminomethly protecting group
<400> 64
Cys Gly Asn Leu Ser Thr Cys Met Leu Gly
<210> 65
<211> 10
<212> PRT
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<223> Description of Artificial Sequence: Synthesized
      cyclic peptide
<220>
<221> MOD_RES
<222> (1)
<223> t-butoxycarbonyl protecting group
<220>
<221> MOD RES
<222> (5)..(6)
<223> tert-butyl protecting group
<400> 65
Cys Gly Asn Leu Ser Thr Cys Met Leu Gly
 1
<210> 66
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthesized
      peptide
<220>
<221> MOD RES
<222> (2)
<223> Residue has Acetamidomethyl or
      tert-Acetaminomethyl or tert-butyl protecting
     group
<220>
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<221> MOD RES
<222> (6)
<223> Residue has Acetamidomethyl, tert-Acetamidomethyl
      or tert-butyl protecting group
<220>
<221> MOD_RES
<222> (9)
<223> AMIDATION
<400> 66
Cys Tyr Ile Gln Asn Cys Pro Leu Gly
                  5
<210> 67
<211> 9
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthesized
      cyclic peptide
<220>
<221> MOD RES
<222> (9)
<223> AMIDATION
<400> 67
Cys Tyr Ile Gln Asn Cys Pro Leu Gly
<210> 68
<211> 5
<212> PRT
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<223> Description of Artificial Sequence: Cyclic
      peptide with classical cadherin cell adhesion
      recognition sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (5)
<223> Where Xaa is beta, beta-dimethyl cysteine
<400> 68
Cys His Ala Val Xaa
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1
                  5
<210> 69
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Cyclic
      Peptide with classical cadherin cell adhesion
      recognition sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (2)
<223> Where Xaa is beta, beta-tetramethylene cysteine
<400> 69
Ile Xaa Tyr Ser His Ala Val Ser Cys Glu
 1
                                     10
<210> 70
<211> 10
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Cyclic
      Peptide with classical cadherin cell adhesion
      recognition sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
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      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (2)
<223> Where Xaa is beta, beta-pentamethylene cysteine
Ile Xaa Tyr Ser His Ala Val Ser Ser Cys
<210> 71
<211> 9
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<212> PRT
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<223> Description of Artificial Sequence: Cyclic
      peptide with classical cadherin cell adhesion
      recognition sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (1)
<223> Where Xaa is beta-mercaptopropionic acid
<400> 71
Xaa Tyr Ser His Ala Val Ser Ser Cys
<210> 72
<211> 9
<212> PRT
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<223> Description of Artificial Sequence: Cyclic
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      recognition sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (1)
<223> Where Xaa is
      beta, beta-pentamethylene-beta-mercaptopropionic
      acid
<400> 72
Xaa Tyr Ser His Ala Val Ser Ser Cys
<210> 73
<211> 5
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Cyclic
      peptide with classical cadherin cell adhesion
      recognition sequence
<220>
<221> MOD_RES
<222> (4)
<223> Where Serine is D-Serine
<400> 73
His Ala Val Ser Ser
<210> 74
<211> 4
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Synthesized
      cyclic peptide
<400> 74
Trp Gly Gly Trp
<210> 75
<211> 15
<212> PRT
<213> Homo sapiens
<220>
<223> Description of Artificial Sequence:
      Representative immunogen containing the HAV
      classical cadherin cell adhesion recognition
      sequence
<220>
<223> N-cadherin with HAV cell adhesion recognition
      sequence and flanking amino acids
<400> 75
Phe His Leu Arg Ala His Ala Val Asp Ile Asn Gly Asn Gln Val
                  5
1
                                     10
<210> 76
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Cyclic
      peptide with classical cadherin cell adhesion
```

recognition sequence

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<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 76
Cys His Ala Val Asp Ile Asn Gly Cys
<210> 77
<211> 7
<212> PRT
<213> Artificial Sequence
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<223> Description of Artificial Sequence: Cyclic
      peptide with classical cadherin cell adhesion
      recognition sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 77
Ser His Ala Val Asp Ser Ser
<210> 78
<211> 48
<212> PRT
<213> Unknown
<220>
<223> Description of Unknown Organism: Occludin cell
      adhesion recognition sequnce and flanking amino
      acids
<400> 78
Gly Val Asn Pro Thr Ala Gln Ser Ser Gly Ser Leu Tyr Gly Ser Gln
Ile Tyr Ala Leu Cys Asn Gln Phe Tyr Thr Pro Ala Ala Thr Gly Leu
Tyr Val Asp Gln Tyr Leu Tyr His Tyr Cys Val Val Asp Pro Gln Glu
<210> 79
<211> 10
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Peptide with
      classica l cadherin cell adhesion recognition
      sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 79
Leu Arg Ala His Ala Val Asp Ile Asn Gly
<210> 80
<211> 14
<212> PRT
<213> Homo sapiens
<220>
<223> N-cadherin with HAV cell adhesion recognition
      sequence and flanking amino acids
<400> 80
Arg Phe His Leu Arg Ala His Ala Val Asp Ile Asn Gly Asn
<210> 81
<211> 12
<212> PRT
<213> Homo sapiens
<220>
<223> E-cadherin with HAV cell adhesion recognition
      sequence and flanking amino acids
<400> 81
Thr Leu Phe Ser His Ala Val Ser Ser Asn Gly Asn
                  5
  1
<210> 82
<211> 4
<212> PRT
<213> Unknown
<220>
<223> Description of Unknown Organism: Cadherin Calcium
      Binding Motif
<220>
<221> VARIANT
<222> (1)...(4)
<223> Xaa is any amino acid
<400> 82
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Xaa Asp Xaa Glu
<210> 83
<211> 4
<212> PRT
<213> Unknown
<220>
<223> Description of Unknown Organism: Cadherin Calcium
      Binding Motif
<400> 83
Asp Val Asn Glu
<210> 84
<211> 6
<212> PRT
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<223> Description of Artificial Sequence: Cyclic Peptide
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<220>
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<400> 84
Cys His Ala Val Cys Tyr
<210> 85
<211> 7
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      and/or C-terminal modifications such as amide or
      ester group
<400> 85
Cys Phe Ser His Ala Val Cys
<210> 86
<211> 8
<212> PRT
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<213> Artificial Sequence
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<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 86
Cys Leu Phe Ser His Ala Val Cys
                  5
<210> 87
<211> 6
<212> PRT
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      with Classical Cell Adhesion Recognition Sequence
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<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 87
Cys His Ala Val Cys Ser
<210> 88
<211> 6
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      with Classical Cell Adhesion Recognition Sequence
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<223> Cyclic Peptide may comprise N-terminal
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      and/or C-terminal modifications such as amide or
     ester group
<400> 88
Ser Cys His Ala Val Cys
 1
                  5
<210> 89
<211> 7
<212> PRT
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: Cyclic Peptide
      with Classical Cell Adhesion Recognition Sequence
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<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 89
Cys His Ala Val Cys Ser Ser
<210> 90
<211> 7
<212> PRT
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      with Classical Cell Adhesion Recognition Sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 90
Ser Cys His Ala Val Cys Ser
<210> 91
<211> 6
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<223> Cyclic Peptide may comprise N-terminal
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      ester group
<400> 91
Cys His Ala Val Cys Thr
 1
<210> 92
<211> 6
<212> PRT
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: Cyclic Peptide
      with Classical Cell Adhesion Recognition Sequence
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<223> Cyclic Peptide may comprise N-terminal
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      and/or C-terminal modifications such as amide or
      ester group
<400> 92
Cys His Ala Val Cys Glu
<210> 93
<211> 6
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      with Classical Cell Adhesion Recognition Sequence
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<400> 93
Cys His Ala Val Cys Asp
<210> 94
<211> 6
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      and/or C-terminal modifications such as amide or
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<400> 94
Cys His Ala Val Tyr Cys
 1
<210> 95
<211> 8
<212> PRT
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<213> Artificial Sequence
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<223> Description of Artificial Sequence: Cyclic Peptide
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<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<400> 95
His Asn Cys His Ala Val Cys Tyr
<210> 96
<211> 7
<212> PRT
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      with Classical Cell Adhesion Recognition Sequence
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<223> Cyclic Peptide may comprise N-terminal
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      and/or C-terminal modifications such as amide or
      ester group
<400> 96
His Asn Cys His Ala Val Cys
<210> 97
<211> 5
<212> PRT
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<223> Description of Artificial Sequence: Cyclic Peptide
      with Classical Cell Adhesion Recognition Sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
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      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (5)
<223> Where Xaa is beta, beta-dimethyl cysteine
<400> 97
Cys His Ala Val Xaa
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5
 1
<210> 98
<211> 5
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: Cyclic Peptide
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<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (1)
<223> Where Xaa is beta, beta-dimethyl cysteine
<400> 98
Xaa His Ala Val Cys
 1.
<210> 99
<211> 6
<212> PRT
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<223> Description of Artificial Sequence: Cyclic Peptide
      with Classical Cell Adhesion Recognition Sequence
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<223> Cyclic Peptide may comprise N-terminal
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      ester group
<400> 99
Cys His Ala Val Pro Cys
<210> 100
<211> 6
<212> PRT
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<223> Description of Artificial Sequence: Cyclic Peptide
      with Classical Cell Adhesion Recognition Sequence
<220>
<223> Cyclic Peptide may comprise N-terminal
      modification such as acetyl or alkoxybenzyl group
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and/or C-terminal modifications such as amide or ester group $% \left(1\right) =\left(1\right) +\left(1\right$

```
<400> 100
Tyr Cys His Ala Val Cys
<210> 101
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Cyclic Peptide
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<223> Cyclic Peptide may comprise N-terminal
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      and/or C-terminal modifications such as amide or
      ester group
<220>
<221> MOD RES
<222> (5)
<223> Where Xaa is beta, beta-dimethyl cysteine
<400> 101
His Asn Cys His Ala Val Cys Ser
```